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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/498,995	02/07/2000	Takafumi Watanabe	04284.0829	9593

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EXAMINER

KIM, JUNG W

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/498,995

Applicant(s)

WATANABE, TAKAFUMI

Examiner

Jung W. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to Applicant's amendment filed on June 30, 2005.
2. Claims 8-17 are pending.
3. Applicant amended claim 8.
4. Claims 1-7 are canceled.
5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendment

6. The 112/2nd paragraph rejection to claim 8 is withdrawn as the amendment overcomes the rejection; however, in view of the amendment to claim 8, the claim is rejected under 112/1st paragraph for lack of an enabling specification as indicated below.

Response to Arguments

7. The following is a response to the Remarks on pgs. 6-11 of the amendment (hereinafter Remarks).
8. In reply to applicant's argument that Iijima does not disclose "first means for writing or rewriting data in the nonvolatile memory ... when the first determining means determines that the command message does not include the validity data and the

second determining means determines the validity data is not stored in the nonvolatile memory” as recited in claim 8 (Remarks, pg. 7, 1st full paragraph), it is noted that examiner’s basis for interpreting the scope of this limitation is based on the invention described on pgs. 10-11 (fig. 10) of Applicant’s specification. In the disclosure, the exemplary description of the invention identifies a command message having one of 4 formats (figs. 7a.-7d.), wherein the format determines the type of the command message. If the message is format #1, then the CPU receiving the command message writes or rewrites as designated by the command header area if the security flag is determined not yet to be validated. If the message is other than format #1, the CPU writes or rewrites data designated by the security format information using the received command message. In this sense, “the validity data” of the command message as recited in the claim is analogous to the format of the command message. As outlined in the previous Office action and as indicated below, Iijima fully discloses such a limitation: when an input message is received, a determination step determines if the input message is input command data for a particular action (such as DF definition command data) (col. 5:64-6:4). Furthermore, when such a determination is made of the command message, several checks are made to determine if validity data is stored in nonvolatile memory; the function of the validity data as an indicator of the validity of a security function includes, inter alia, a check for DF assignment (col. 5:64-6:51; 7:1-25 and 32-51; 9:5-28), verifying data in a user area (11:28-12:29), and a verification step when the issuer of an IC card checks a memory of the card (col. 12:40-54). See also figure 10 and related text. Hence, Iijima anticipates the claimed invention recited in claim 8.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 8 defines a device with a security function wherein validity data indicates whether the security function is valid, and a means to determine if a command message received includes said validity data, and means to determine if said validity data is stored. However, the specification does not describe the validity data as stored (or not stored) in the device as being one and the same as the validity data in the command message. In fact, based on the enabling disclosure of Applicant's specification (pgs. 10-11), it is not clear exactly what is the claimed validity data of the command message that is being identified by the first determining means. Hence, the amended claim is not adequately enabled by the specification.

Claim Rejections - 35 USC § 102

11. Claims 8-11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Iijima U.S. Patent No. 5,365,045 (hereinafter Iijima).

12. As per claim 8, Iijima discloses a portable electronic device with a security function, containing an application program, comprising:

- a. means for storing validity data indicating whether the security function is valid in a nonvolatile memory (col. 5:56-6:18 and 58-62; 11:28-12:19; 12:40-13:3; figure 10 and related text);
- b. first means for determining whether a command message received from outside of the device includes the validity data (6:5-18; 7:1-10 and 32-41; 9:6-18; 9:63-10:6; 11:29-41; Figure 11 and related text);
- c. second means for determining whether the validity data is stored in the nonvolatile memory (figure 10 and related text); and
- d. first means for writing or rewriting data in the nonvolatile memory after receiving the command message when the first determining means determines that the command message does not include the validity data and the second determining means determines the validity data is not stored in the nonvolatile memory (5:64-6:50, especially 6:19-50; 12:31-13:3).

The aforementioned cover the limitations of claim 8.

13. As per claim 9, the rejection of claim 8 under 35 U.S.C. 102(b) is incorporated herein. In addition, the card further comprises a first means for outputting a status indicating that the command message is not acceptable when the first determining means determines that the command message is not included in the data for the

security function and the second determining means determines that the validity data is stored in the nonvolatile memory. Iijima, col. 6:15-18. The aforementioned cover the limitations of claim 9.

14. As per claim 10, the rejection of claim 8 under 35 U.S.C. 102(b) is incorporated herein. In addition, the card further comprises:

- a. a third means for determining whether verification of the data for the security function succeeded when the first determining means determines the command message is included in the data for the security function (col. 9:63-10:20); and
- b. second means for writing or rewriting data into the nonvolatile memory following the command message when the third determining means determines the verification was successful (10:30-11:27).

The aforementioned cover the limitations of claim 10.

15. As per claim 11, the rejection of claim 10 under 35 U.S.C. 102(b) is incorporated herein. In addition, the card further comprises a second means for outputting a status indicating that the command message is not acceptable when the third determining means determines the verification of the data for the security function was not successful. Iijima, col. 11:42-62. The aforementioned cover the limitations of claim 11.

16. As per claim 13, the rejection of claim 9 under 35 U.S.C. 102(b) is incorporated herein. In addition, the command message further comprises:

- a. a writing or rewriting command (col. 10:42-45); and
- b. encoded data that is written or rewritten into the nonvolatile memory after being decoded based on verification of the data (4:9-17).

The aforementioned cover the limitations of claim 13.

Claim Rejections - 35 USC § 103

17. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

18. Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima in view of Schneier Applied Cryptography Chapter 2 "Protocol Building Blocks" and Chapter 24 "Example Implementations" (hereinafter Schneier).

19. As per claims 12 and 14, the rejections of claims 9, 10 and 13 under U.S.C. 102(b) are incorporated herein. Although, Iijima does not explicitly disclose additional spare data on the command message guaranteeing the validity of the data, information transferred to an IC card is typically secured and validated by cryptographic methods as taught by Schneier. Schneier, pg. 587, Section 24.13 'Smart Cards'. Furthermore, Schneier teaches several general protocols to verify data using digital signatures and hashes. Schneier, pgs. 31-44; MAC, one-way hash, digital signature. It would be obvious to one of ordinary skill in the art at the time the invention was made to secure

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the command data using digital signatures since doing so enables the receiver to validate the authorship of the received message. Schneier, pg. 35, 5 compelling reasons. The aforementioned cover the limitations of claims 12 and 14.

20. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima in view of Grimonprez et al. U.S. Patent No. 5,473,690 (hereinafter Grimonprez).

21. As per claim 15, the rejection of claim 9 under 35 U.S.C. 102(b) is incorporated herein. Although, Iijima does not expressly disclose storing a plurality of application programs wherein each program has an associated security program, IC cards are typically designed to hold more than one application securely. For example, Grimonprez discloses a secure method for loading a plurality of applications on to a microprocessor of an IC card wherein each application has a corresponding security program. See Grimonprez, Figure 3, 'Name of Application' and 'Password of Application'; Figures 8 and 9. It would be obvious to one of ordinary skill in the art at the time the invention was made for the IC card to store a plurality of security programs, each corresponding to an application program. One would be motivated to do so to establish a more secure access methodology since a compromise of the password of an application does not compromise access to other applications stored in the smart card as known to one of ordinary skill in the art and as taught by Grimonprez, *ibid*. The aforementioned cover the limitations of claim 15.

22. As per claim 16, the rejection of claim 13 under 35 U.S.C. 102(b) is incorporated herein. In addition, a plurality of security programs is separately validated in response to a prescribed command message for validation, and wherein each security program corresponds to an application program. Iijima, col. 4:4-8; 11:28-12:19; Grimonprez, figures 3, 8, and 9, and related text. It would be obvious to one of ordinary skill in the art at the time the invention was made for a plurality of security programs to be separately validated in response to a prescribed command message for validation, and wherein each security program corresponds to an application program in the device taught by Iijima to ensure the security of the user's data storage area by ensuring each of the plurality of applications associated with the user's data storage area. See Iijima, Figure 4, Reference No. 20b (user area allocates space for a plurality of data files); 11:28-12:19. The aforementioned cover the limitations of claim 16.

23. As per claim 17, the rejection of claim 16 under 35 U.S.C. 103(a) is incorporated herein. In addition, at least one available format of the command message is separately defined, and wherein each format corresponds to an application program. Iijima, figures 11-17 and related text. The aforementioned cover the limitations of claim 17.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Communications Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is 571-272-3804. The examiner can normally be reached on M-F 9:00-5:00.

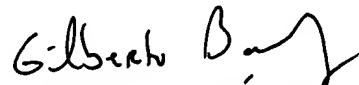
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jung W Kim
Examiner
Art Unit 2132

August 11, 2005



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